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The Carnegie Foundation Plan of Insurance and Annuities for College Teachers

M. ALBERT LINTON

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THE PROVIDENT LIFE AND TRUST COMPANY
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NOTE

THIS pamphlet has been prepared for the use of the agents of the Provident Life and Trust Company, and of others who are interested in the principles of insurance protection put forth by the Carnegie Foundation. There is no antagonism on the part of the Company to the idea of faculty members availing themselves of the benefits offered to them by the Foundation through the Teachers' Association. Their right to avail themselves of these benefits, and to choose the form of policy in their Association which their good judgment shall dictate, is too obvious to need demonstration.

Unfortunately the Handbook of the Association and certain publications of the Carnegie Foundation contain statements that may easily give the impression that the old age endowment policy—the policy maturing at some definite age, say between the ages of 60 and 70—is an inherently objectionable form of insurance. There are thousands of policyholders in this and other companies who hold this form of policy, and we feel it our duty, in the light of the statements of the Carnegie Foundation, to present as simply as possible the principles underlying the old age endowment policy issued on a participating basis. Our faith in this form of policy results from our experience with thousands of policyholders whose old age endowments have matured.

In furtherance of this thought this pamphlet was shown to several well known college professors, with the result that we have been asked whether we would be willing to send copies to the members of the American Association of University Professors. Dr. S. S. Huebner, Professor of Insurance and Commerce in the Wharton School of the University of Pennsylvania, says:

"Your pamphlet deals so fairly with many of the vital topics under consideration in connection with the Carnegie Foundation Plan of Insurance and Annuities, that I would very much like to have it in the possession of every member of the Association. I took the liberty of sending a copy of your pamphlet to Dean Stone, Chairman of the American Association's Committee on Insurance and Pensions. He agrees with me that it would be a fine thing to have the Association membership become acquainted with the points made in your article."

It is in response to this suggestion that the pamphlet is sent you.

The Carnegie Foundation Plan of Insurance and Annuities for College Teachers

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The Carnegie Foundation Plan of Insurance and Annuities for College Teachers

In March 1918, the Teachers' Insurance and Annuity Association of America was incorporated under the insurance law of the State of New York for the purpose of furnishing life insurance and annuity policies to the college teachers of the United States and Canada. The Association is closely allied with the Carnegie Foundation for the Advancement of Teaching which supplied the capital and surplus of $1,000,000. The expenses of the Association will be paid from the income on the capital and surplus or, if this should be insufficient, then from the funds of the Carnegie Foundation. This expense provision has been made in the hope that the Association will be able to furnish insurance and annuity policies at rates lower than the rates of the private companies who, of course, have to meet their expenses out of the premiums paid by their policyholders.

Several publications of the Carnegie Foundation have dealt with the proposed plan of insurance and annuities, which, we are told, has been evolved with the co-operation of experts in Europe and America, and is based upon exhaustive original research. It is, therefore, bound to command serious attention, not only from college teachers, who are most intimately

concerned, but also from all who are interested in the application of life insurance to the needs of society.

Two Major Contingencies to Be Met

The Carnegie Foundation has ably analyzed the two major contingencies facing the average man. First, the contingency of premature death which may plunge his dependent family into privation and suffering, and second, the contingency of reaching the end of his income-earning career without sufficient means to provide adequately for the declining years of himself and his family. The experience of The Provident Life and Trust Company during the last fifty years thoroughly supports this analysis. It is true in every detail. Ever since the Provident commenced business, it has been advocating and selling a policy prepared particularly to meet these two contingencies. The Company is therefore intensely interested in applying the results of its own experience to test the proposed plan of the Carnegie Foundation. If the Carnegie plan is superior, life insurance companies should adopt it.

The Proposed Plan

The Handbook of the Teachers' Association sets forth its ideal plan for meeting the two contingencies. To meet the contingency of dependency in old age, it recommends an annuity policy providing at the retirement age, say age 65, a fund sufficient to purchase some form of annuity for the remainder of life. Prior to the retirement age the annuity policy operates upon the simple plan of a savings fund which accumulates

at interest from the periodical payments made by the teacher. To meet the contingency of premature death, life insurance is recommended. For teachers not over 40 years of age a special decreasing insurance policy has been devised to accompany the annuity policy. The insurance policy provides that the full face value shall be paid if death occur prior to age 41. At age 41, and each year thereafter, there occurs a reduction in the amount of insurance equal to 3 per cent. of the original face value. At age 70, thirty reductions have occurred and the insurance has been reduced to 10 per cent. of the original face value. Thereafter the reduction ceases. It is further provided that premium payments shall cease at age 65.

Analysis of the Combination

For the purpose of analyzing this combination, we shall assume as the basis of our computation the American Experience Table of Mortality and interest at 3½ per cent. This basis provides the smallest net life insurance premiums permitted by law. We will assume that the policy is taken out at age 30, and that the amount of the savings fund that is to be available at age 65 for the purchase of the annuity, and the face value of the insurance policy before any reduction has occurred, are each equal to $10,000. On the basis of these assumptions we find that the net annual premium for the annuity policy is $145, and for the insurance policy $99—a total of $244.

A teacher therefore who holds these two policies involving a net premium of $244 each year, will be

protected against the two contingencies above discussed. If he lives to attain age 65, the savings fund will have attained its contemplated amount and the annuity will commence. If he does not live to attain age 65, his widow receives both the amount of the savings fund accumulated to date, and the amount of the insurance policy. The following table shows the total amount produced by the two policies if death occurs at certain specified times:

If Death occurs at end of:	Age Attained	Total Amount Payable
1 year	31	$10,150
5 years	35	10,804
10 years	40	11,759
20 years	50	11,241
30 years	60	11,742

At the end of 35 years, when age 65 has been attained, the savings fund matures for the cash sum of $10,000, with which the annuity is purchased. The premiums cease on the insurance policy which then has been reduced to the face value of $2500, payable in event of death. The reduction continues at the rate of $300 each year until at age 70 the face value has been reduced to $1000.

A Hybrid Endowment

The irregular series of amounts shown in the table at once suggests the possibility of simplifying the combination so that the amounts would remain uniform

from year to year. This simplification is readily made and, moreover, may be embodied without the slightest difficulty in one single contract instead of two, as in the Carnegie plan. If the proposed simplification were made, the same net premium of $244 would provide a policy paying $11,240 in the event of death *at any time* prior to age 65, and also the same sum, $11,240, if the policyholder survived to age 65. Under this simplified plan the insurance would cease as soon as the $11,240 had been paid at age 65. There would seem to be no valid reason for insurance protection after the savings fund has attained its contemplated total.

The simplified combination at which we have arrived is nothing more or less than the true endowment policy. The true endowment policy, although embodied in one single contract, is likewise a combination of a savings fund and a term insurance element. But it possesses the advantage that the continuing increase in the savings element is exactly and automatically balanced by the continuing decrease in the insurance element, so that exactly the same amount is payable in the event of premature death as would have been paid if the policyholder had lived to complete his savings fund. Nothing could be simpler than this single contract performing its double function. Moreover, experience has demonstrated that the true endowment maturing at the close of a man's income-earning career is an ideal form of policy with which to provide against the two contingencies of life, so ably analyzed by the Carnegie Foundation. The result of our analysis leads to the conclusion that the Carnegie com-

bination is simply a *hybrid form of endowment policy* considerably more complicated than the true endowment.

Does Carnegie Foundation Understand the Endowment Policy?

In view of this conclusion we are completely at a loss to understand why the Carnegie Foundation in writing of the endowment policy fails to emphasize that the endowment policy is peculiarly adapted to meet the two contingencies for which their peculiar, two-policy combination was devised. In the Supplement following this article, we reprint the three extended references to the endowment policy appearing in Bulletin Number Nine (1916) and the Annual Reports for 1916 and 1917 published by the Foundation. Throughout these references it is evident that the Foundation stresses the conception of the endowment policy as an "investment" policy. In one sense, of course, the endowment is an investment, but it is an investment *in exactly the sense that the word applies to the Carnegie combination.* In fact, the combination of the $10,000 Carnegie decreasing insurance policy with the $10,000 annuity policy involves a net premium of $244, against $217 for the regular $10,000 Endowment at age 65, *although each provides the same sum, $10,000, at maturity.* In other words, the cost of the larger insurance element in the Carnegie combination will make the combination, from the investment point of view, appear less favorable than the Endowment at 65. Yet in spite of this fact we read in the recently published Handbook of the Teachers' Association* that

* Pp. 12, 13.

endowment insurance "is the most expensive form of insurance as it provides both insurance protection and investment"; and that "the Association does not regard the endowment form of insurance as adapted to the circumstances of teachers in general. *To meet exceptional cases it offers endowment insurance maturing at age sixty-five.*" (The italics are our own.)

An Example of Actual Cost

At this point it will be instructive to investigate the cost of one of these "most expensive forms of insurance" which recently* matured in the Provident which, of course, was not subsidized as to its management expenses, as is the Teachers' Association. The policy which matured was an Endowment at 65, taken originally at age 30. The actual cost upon a $10,000 basis is shown by the following figures:

Total premiums paid to the Company....	$9,055
Total surplus returned by the Company..	2,575
Difference=total net cost during 35 years..	$6,480
Average net cost per year.....	$185

Comparing this average net cost of $185 for a Provident $10,000 Endowment at 65, with the cost of the hybrid combination, how can the endowment be condemned as expensive?

It will be noted that the low net cost shown in the foregoing example was attained as a result of the distribution of surplus. It shows clearly that the ultimate cost to the policyholder does not depend primarily upon the gross premium charged, but upon the amount

*September, 1918.

of surplus realized. Under a participating contract, the actual cost of the insurance depends upon the experience of the company and not upon the assumptions underlying the premium calculations.

Why Non-Participating Policies?

Now a word or two about the policies of insurance that the Teachers' Insurance and Annuity Association plan to offer. The Association will issue all the usual forms of insurance and annuity policies, although the decreasing insurance policy combined with the annuity policy represents, in the eyes of the Carnegie Foundation, the ideal scheme of complete protection for the teacher not over 40 years of age. The Association will conform to the insurance laws of the State of New York and will issue insurance policies at net legal rates, that is, at rates not lower than those computed upon the net American 3½ per cent. basis. We are told that the policies will be non-participating as "it is evident that distributions on a participating policy issued at net rates would be so small during the first years of its existence that if distributed in annual dividends they would not in some cases pay the cost of postage." * In view of the fact that no expense charge will be borne by the policyholders this is a remarkable statement. And we shall see why it is remarkable if we compute the surplus that would be realized should the actual rate earned be 4½ per cent. and the actual mortality rate experienced be 70 per cent. of that shown by the American Table. (For the five years 1913 to 1917 inclusive, the average rate of forty-five private companies was 66 per cent.) The

* Twelfth Annual Report (1917), p. 46.

following figures relate to $10,000 of insurance taken at age 30.

Kind of Policy	Net Yearly Premium: American 3½%	First Year Surplus	Average Yearly Surplus for 35 Years
Endowment at 65.....	$217.10	$27.10	$61.00
Twenty Payment Life..	247.10	27.30	62.80
Ordinary Life	171.90	26.80	56.30
Term to 65.....	120.90	26.30	50.90

Since none of this surplus will be needed for expenses, it will all be available either for building up a contingent fund or for distribution. Assuming that one-half is withheld for contingencies, the remaining half is by no means insignificant. If the policyholder is to receive his insurance at actual cost the surplus must eventually be distributed. The surplus under the policies of the Teachers' Association will undoubtedly be large, and we see no valid reason why the contracts should not provide for participation unless it is desired to withhold the surplus from the control of the teachers. *

The Published Rates of the Association

Thus far our analysis of the Carnegie Foundation combination has involved net premiums computed upon the American 3½ per cent. basis. The actual rates published in the Handbook of the Teachers' Association indicate that the insurance premiums have been computed upon this basis, but that the savings fund annuity premiums, as permitted by the law relating to annuity calculations, have been computed upon a

* The Association will probably not be able to confine certain of its expenses within the assumed mortality gains specified in the New York law, so that the premium rates, if made participating, should be somewhat increased to meet the technical requirements of the law. The effect upon the net cost, however, would be negligible since the distributable surplus would likewise be increased.

4 per cent. basis. Now the higher the interest assumption, the smaller the resulting premium, since the more interest received, the less money the policyholder will be called upon to pay. Therefore, the combination of the savings fund premium computed upon a 4 per cent. basis, with the decreasing insurance premium computed upon a 3½ per cent. basis, yields a total that is smaller than the total of the two net 3½ per cent. premiums which we employed to obtain a true comparison with the regular Endowment at 65. We found (page 5) that $244 was the total net yearly premium on a 3½ per cent. basis for the Carnegie combination of a $10,000 annuity policy with the $10,000 decreasing insurance policy. The 3½ per cent. net premium for the true $10,000 Endowment at 65 is $217, or $27 less. When we use the published rates of the Teachers' Association, where the annuity premium is computed upon a 4 per cent. basis, this difference is reduced to about $10. *

For example, from page 99 of the Teachers' Association Handbook, we learn that $8.58 is the monthly premium at age 30 for the Association's $10,000 decreasing insurance policy. From Table II on page 111 we compute that $11.08 is the Association's monthly savings fund premium to accumulate $10,000 in 35 years. The two together, therefore, amount to $19.66. From page 109, we learn that the monthly premium at age 30 for the Association's $10,000 Endowment at 65 is $18.80. On the yearly basis therefore, the published rates appear to indicate that the combination costs but about $10 more than the endowment.

* In the interest of simplicity and to emphasize principles rather than minor details, no reference is made in this comparison to any disability element that may be contained in the Association's premiums.

From what has been said upon the subject of participation, it is evident that the reduction in the difference between the two premiums would be nullified in the long run if the teachers were granted the right to receive the surplus realized upon their policies. For obviously the surplus realized from interest earnings would be greater under a 3½ per cent. contract than under a 4 per cent. contract. Under a participating policy, as stated above, the ultimate actual cost depends upon experience, and not upon the assumptions underlying the premium calculation.

Joining the Issue

The Teachers' Association is a fine conception affording college teachers an assistance which does not savor of charity. The general principles laid down for its guidance are sound. Among the private companies there will be no feeling of rivalry with the new Association which they welcome to the insurance brotherhood. It is in no unfriendly spirit that regret is expressed that the Carnegie Foundation and the Teachers' Association have apparently failed to see how, for the average man, the well-tried endowment form completely carries out, in the simplest and most effective way their own basic principles. Through their failure to see this clearly they put themselves in the false position of criticising the endowment form as expensive, and then of recommending a combination which, compared upon a participating basis, requires a larger outlay of money, but provides the same sum at retirement. In presenting our analysis of the combination, we are fortified by the Provident's experience with thousands of satisfied policyholders who have lived to

receive payment under their matured old age endowments. And according to our mortality experience, about sixty-eight out of every hundred policyholders who insure at age 30 live to age 65.

The idea suggests itself that the real reasons for recommending the somewhat cumbersome combination of two policies, one savings and one protection, are not brought forward. One reason may be that the Carnegie Foundation believes that the separation into two policies will render it easier for the college to assist financially in providing the annuity at retirement. Another may be that it believes it wise to provide an annuity policy against which the teacher will not have the right to borrow. If these be the real reasons, the objections to the well-tried, satisfactory endowment plan are wholly extrinsic; and it is a matter of regret that the endowment form of insurance should have been presented as inherently objectionable.

We, of course, have nothing to do with the form of Teachers' Association policy which any teacher may choose. We have to do only with our own policyholders, present or prospective, who may not have noticed the inconsistency in the publications of the Carnegie Foundation and in the Handbook, between the criticism of endowment insurance as expensive, and the recommendation of a still more expensive form containing the identical endowment element; or between the statement in the 1917 Annual Report that endowment insurance is an "investment rather than a means of protection against risk," and the warm recommendation of a savings fund annuity policy as a means of protection against one of the major risks of life—the risk of dependency in old age.

English Retirement System Based Upon Endowment Policy

It is interesting to note that the English Universities in their Federated Superannuation Plan employ the old age endowment as their standard for teachers with dependents, and the annuity policy alone for teachers without dependents. In our judgment these two policies, with perhaps the addition of short term insurance, form the basis of the ideal retirement system. Furthermore, a system of this kind possesses great flexibility. The annuity and savings fund accumulation options, which will be incorporated in the savings fund annuity policy of the Teachers' Association, may be incorporated in an old age endowment policy.

If it is not desirable that the teacher withdraw from teaching when the endowment matures, say at age 65, provision can be made for continuing the premium payments on a pure savings fund basis, so that an increased accumulation will be available for the annuity when retirement does take place. If retirement should occur prior to maturity of the endowment the cash value of the endowment is available to purchase the annuity.

If the college desires to render financial assistance only in building up the fund which will provide the retirement pension, it may do so under the endowment policy, since the endowment premium involves a definite savings fund element that may always be calculated.

It may be desired to limit the teacher's power to borrow against the accumulation standing to his credit. Such borrowing, if extensively indulged in, would

largely defeat the purpose for which the retirement plan was instituted. One way of meeting this problem when the endowment policy is adopted as the standard, is to have the policy issued in favor of a Trustee or Trustees appointed for the purpose. The Trustee in return would execute an agreement with the teacher providing that if the policy proceeds should become payable, they would be applied by the Trustee in a manner specified by the teacher. This is the method adopted by a Retirement Fund recently established for teachers in schools under the care of Philadelphia Yearly Meeting (Fourth and Arch Streets) of the Society of Friends.

Conclusion

The Provident Life and Trust Company has a peculiar interest in the Carnegie plan for the reason that the Company has had an extensive experience with endowment insurance. Prior to the first of December, 1918, it had paid, since the organization of the Company in 1865, $51,700,000 in matured endowments, as against $52,600,000 for death claims. Last year 66 per cent. of its new business was on the endowment plan, written to mature, on the average, at age 63. During the same year the other companies operating in the State of New York wrote but 17½ per cent. of their new business on the endowment plan. We have seen the old age endowment policy work out so satisfactorily in thousands of instances that we are more and more convinced that it is the ideal form of policy to provide protection against the two contingencies of premature death and dependency in old age.

SUPPLEMENT

Views of Carnegie Foundation Upon Endowment Insurance

The indices of Bulletin Number Nine, and the 1916 and 1917 Annual Reports, all published by the Carnegie Foundation, contain five references to *Endowment Insurance* or *Endowment Policies.* Of these references the three which present the attitude of the Foundation toward endowment insurance are reprinted below. In the foregoing article we have commented upon the conclusions that we draw from these quotations.

Bulletin Number Nine, Page 27

"For the present misconception of the function of insurance the great insurance companies are in part responsible. They have educated the public away from the primary use of insurance. The process has been a natural one. Endowment and tontine policies mean large payments, great accumulations in the hands of the companies for investment, and greatly increased commissions for the agents. The enterprising life insurance agent naturally sells an ordinary life or a term policy only after he fails to persuade the purchaser of insurance to take one of the more expensive forms. For teachers, as for all other men upon fixed salaries, investment policies are essentially against their interest. They are justified upon one ground only, and that is the ground usually assigned by teachers themselves. Only by creating a definitely recurring obligation does the typical teacher find it possible to save money at all. He realizes, when his endowment policy matures at the end of twenty or thirty years, that as an investment it represents a poor return, but he consoles himself with the reflection that but for the insurance policy he would most probably have saved no money at all."

Eleventh Annual Report (1916), Page 46

"Only one complaint of a definite sort has appeared in reference to the statements concerning insurance made in the Bulletin. This came from the actuary of a company whose

principal business is the selling of endowment policies. It referred to the Bulletin as an attack upon endowment insurance.

"It requires but a glance at the Bulletin itself to show the mistake of this view. In no respect was endowment insurance as such attacked. It was shown, however, that endowment insurance was not that form of insurance adapted to the needs of a man upon modest salary, who has a pension guaranteed to him if he lives to a certain age. To a man so circumstanced insurance as an investment offers meagre returns. Two reasons influence teachers in the purchase of such policies, outside the solicitations of the agent. The first is that by binding himself to a fixed obligation of definite amount each year, the teacher forces himself to save money. The second is that an endowment policy is a convenient security upon which to borrow, a circumstance which too often results in defeating the purpose of insurance. The endowment policy does not meet the need of legitimate insurance for men circumstanced as are teachers. This is no criticism upon companies which sell this form of insurance, but it illustrates the fact that the selling point of view in life insurance does not always conform to the interest of the buyer.

"The criticism, so far as it undertook to compare the results of term insurance as here offered with those obtained in the last thirty years from endowment policies, was entirely misleading."

Twelfth Annual Report (1917), Pages 51, 52

"Endowment policies represent a form of insurance in which the purpose of protection is in large measure subordinated to that of investment. Endowment policies provide for the payment of the face of the policy, not only upon the death of the insured, but also at the end of the stated term, if the insured be still living.* This form of policy is extremely popular among teachers as well as among other purchasers of insurance. The notion that the insured is providing something not only for the protection of his dependents, but also something for his own

* These are exactly the reasons why the old age endowment fully protects against life's two major contingencies—premature death and dependency in old age.

protection and profit, is one that appeals to a well-nigh universal human trait. It departs, however, from pure insurance, in two respects. The motive is no longer simply the protection of dependents. Also, such insurance is an investment rather than a means of protection against risk.*

"The argument generally advanced in recommending this form of insurance is that it constitutes a safe method for saving and one open to the individual of small and large means alike. A large number of teachers invest in endowment policies for the same reason that other men of limited income make such investments, influenced partly by the arguments of the life insurance agent, who generally prefers to sell an endowment policy, and partly by the very natural feeling that here is a reservoir to which he may go in case of any pressing need."

*Why not a protection against the risk of dependency in old age, the very risk against which the Foundation would provide by means of a savings fund annuity policy?

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